

Professional Update

Issue 6 | October 2015 | University of Southampton Auditory Implant Service

Celebrating 25 Years



There are special reasons to celebrate in 2015. With our service starting in 1990, we are marking our 25th year. We are also delighted to announce that this year marks our 1000th patient to receive a cochlear implant at USAIS.

The service has seen a lot of change over the years from a small team in the early days

through to the comprehensive multidisciplinary team that exists today. We have seen much development in the field of cochlear implant research and technology. Additionally we have moved to new premises with specialised clinic and consultation rooms. Of course more recently in 2013 we changed the name of the service from the South of England Cochlear Implant Centre (SOECIC) to the University of Southampton Auditory Implant Service (USAIS) to reflect the expansion of the services we provide to include other implantable devices such as Bone Anchored Hearing Aids (BAHA).

On 25 April we celebrated with a Caribbean party. Over 200 patients and their families, along with past and present staff spent a colourful and fun-filled day which had been transformed into Caribbean 'paradise' with palm trees, parrots and balloons. Guests arrived dressed in bright colours and some wonderful costumes to add to the overall effect. The 25 year celebration cake was created by Roberta Buhagiar (Audiologist). It comprised Caribbean sea and beach complete with references to our clinic rooms such as, Starfish and Seahorse.

USAIS Director Carl Verschuur and Simon Cox (Associate Dean for Enterprise) conducted the celebratory speeches. Carl gave a brief history of the service through development in research and technology, staffing and buildings to the USAIS we know today. Simon relayed the university pride in the Auditory Implant Service and expressed his admiration for the patients and families who attend the centre. He particularly enjoyed meeting patients and hearing their individual and inspirational stories throughout the day.



Anniversary cake made by Roberta Buhagiar

Director, Dr Carl Verschuur, said:

“It was fantastic to celebrate the achievements of the centre together with the patients who have benefitted from cochlear implants over the past 25 years. We’ve witnessed some inspiring stories in that time that drive us on as we continue to research and develop new technologies and treatments in the field.”

Charity Update

On 2 August 2015 one of our team members, Tamara Turchet, Teacher of the Deaf, & her wife Jo took part in the Prudential Ride 100 London-Surrey to help raise money for our charity of the year Alzheimer's Research UK (ARUK).

The bike ride started at the Queen Elizabeth Olympic Park, then followed a 100-mile route on closed roads through the capital and into Surrey's stunning Countryside, up Box Hill then back into London to finish in wonderful sunshine to the cheers of the crowds of onlookers lining The Mall.

Many thanks to all who supported the ride and ARUK – with everyone's help we raised over £1300.

At our Caribbean themed patient party we were proud to raise £330 for ARUK through a bric-a-brac stall, raffle and generous donations from our patients.

Our charity efforts for ARUK will be continuing throughout the year – look out for the collection tubs in reception next time you are coming in to AIS!!



The conference focuses on scientific developments in auditory implants and hearing

'The Future of Auditory Implants' 25th Anniversary scientific conference

In honour of its 25th anniversary, the University of Southampton Auditory Implant Service will be hosting a one-day scientific meeting on "The Future of Auditory Implants" on 6 November at the Chilworth Manor hotel just outside Southampton.

The meeting will focus on current and future developments in auditory implants, including bone-anchored hearing aids and middle ear implants as well as new developments including vestibular implantation. This will be a great opportunity to learn about what the future holds for cochlear implants and other implantable hearing devices, and will be of particular interest to audiologists, ENT surgeons and other professionals who refer patients for cochlear implants or other implantable hearing devices, as well as anybody who has an interest in the fascinating scientific developments in this area.

Venue	Chilworth Manor Hotel, Hampshire, SO16 7PT
Date	Friday 6 November 2015
Time	9:15am – 4:30pm
Fee	£40 Conference (lunch and refreshments will be provided) £110 Bed and Breakfast and Conference
	A night before (Thursday 5 November) Canapés and Arrival Drinks Reception funded by Cochlear and Advanced Bionics
	To pay by credit/debit card please follow the link http://bit.ly/1UqeCUD
	For further information or for alternative payment methods please email AIS.Training@soton.ac.uk

Research at the Auditory Implant Service

Here at USAIS, we are very committed to research in order to ultimately benefit our patients. Here is a sample of projects going on at the moment.

Having a cochlear implant when you're deaf from birth



Suzanne O'Gara
Clinical Scientist
S.O'Gara@southampton.ac.uk

This project looks at factors that could affect the outcomes of cochlear implantation in people with a hearing loss from birth. Results have shown that communication mode (speech or sign) and a history of progressive hearing loss affect performance after implantation. These results have been used to develop an information sheet for patients who are being assessed for a cochlear implant.

Remote follow-up of adult cochlear implant users



Helen Cullington
Clinical Scientist and Research Coordinator
H.Cullington@southampton.ac.uk

Helen has received funding from the Health Foundation to start a project conducting remote follow-up of adult cochlear implant users. This may mean that instead of coming to the centre, patients will be able to test their own hearing, and make some adjustments to their own map, as well as get support and rehabilitation all at home – using a computer or smart phone. The aim is to make our service even more patient centred. Patients will only attend USAIS when they need to and could do the majority of cochlear implant care and checks themselves at home. (Contact Helen Cullington if you would like further information).

Outcomes for people with Auditory Neuropathy Spectrum Disorder (ANSD)

Kirsty Carey
Speech and Language Therapist
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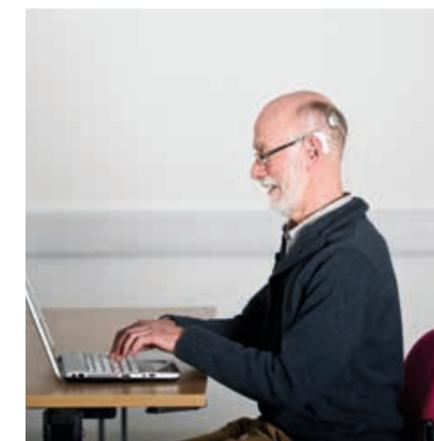
Sue White
Clinical Scientist
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ANSD is a type of hearing loss where there is a problem transmitting sound from the inner ear to the brain. Around 1 in 10 people with a permanent hearing loss may have ANSD.

A group of 11 USAIS children with ANSD were compared with 11 children with no additional difficulties and 11 children with additional difficulties.

All three groups of children made progress on average in listening and speech production after one year of cochlear implant use. The children with ANSD made similar progress to the children with no known additional difficulties. However the group of children with ANSD started at a lower point on the assessment scales. The group of children with additional difficulties did not make as much progress as the other two groups.

This is a positive outcome for implanted ANSD patients. However we only had a very small number of children in this project. We therefore need to be careful when using this information to counsel individual patients and families about how they/their child might progress with an implant.



Donations funding research

We are delighted to say that many of our patients, their families and friends helped raise money for our centre through sponsored walks, pub quizzes and many other things.

We also often receive donations from patients and their families. Some of this money is used to improve our service (for example, play tools for children). The rest is used to fund research projects. USAIS has a committee to evaluate research applications to this fund; we aim to use these donations to support research projects to improve outcomes for our patients. The donations committee has now provided funding for five projects, including: how advanced fitting techniques could be introduced into fitting appointments for children at USAIS, the development and validation of a music-related quality of life measure for adult cochlear implant users, alternative postoperative care pathways for children, and studies into the relationship between hearing preservation and inflammation.

Self-funded Cochlear Implant Service

We now offer a self-funded cochlear implant route at USAIS for adults whose hearing levels fall outside the criteria set by NHS England for funding cochlear implants (NICE TAG 166). In the UK, children who meet NICE criteria are eligible for 2 implants while adults are eligible for only one implant, unless there is significant visual impairment.

Clinical experience shows that some adults may not meet the NICE criteria but would benefit from cochlear implantation. To qualify for a cochlear implant through our self-funded route the adult needs to demonstrate a severe to profound hearing loss (worse than 70dBHL) in the high frequencies. In other words, still have a significant hearing loss but not as severe as required by NICE criteria, i.e. >90dBHL in the high frequencies and a BKB score of <50% for both ears.

Possible candidates that are considered for the self-funded route include:

- Adults with severe bilateral hearing loss who are out of NICE criteria
- Adults with profound bilateral hearing loss who already have one cochlear implant but would like a second one for the other ear
- Adults with a severe to profound hearing loss in one ear and some degree of hearing in the other ear

We are currently looking into offering a self-funded route for children and will provide more information as this progresses.

For more information, please visit our website or contact us on ais@southampton.ac.uk



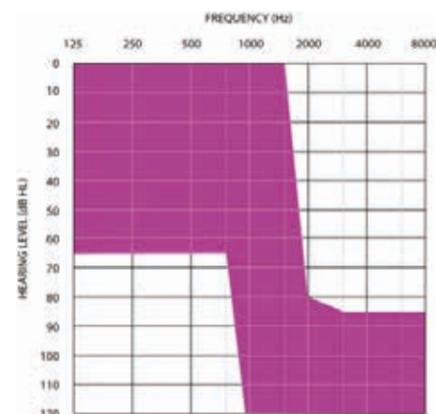
Cochlear Implant patient at USAIS

Electro-acoustic Stimulation: A brief introduction

An important aspect of current cochlear implant services is the fact that people with good low frequency hearing levels can benefit from cochlear implantation and that hearing preservation after cochlear implant surgery is improving all the time.

In the early days of cochlear implantation, only people with no measurable hearing pre-operatively were considered for cochlear implantation. Gradually people with increasing amounts of residual (particularly low frequency) hearing are receiving, and benefitting from cochlear implantation. Combining acoustic access to low frequencies with electrical stimulation of mid and high frequency hearing regions via the cochlear implant has been shown to give additional advantages to perception of speech in noise, music and other sounds as compared with cochlear implantation alone, so is well worth considering.

The figure below shows the candidacy levels for somebody to receive the MED-EL



electro-acoustic (EAS) device, as an example. An EAS device is simply a cochlear implant with a hearing aid attached for low frequency amplification. For audiologists or ENT surgeons, we would encourage you to consider referring individuals with hearing thresholds worse than 90 dB HL at both 2000 and 4000 Hz even when they have very acute low frequency thresholds, as outcomes can be excellent and in most cases hearing can be well (if not perfectly) preserved, thanks to the very significant advances in surgical and medical aspects of cochlear implantation. These include improvements in surgical techniques and the use of pre- and post-operative steroid delivery, along with the advent of less-damaging cochlear implant electrodes). The one difficulty is that many adults who have an island of good low frequency hearing will often have higher speech perception scores than those that enable them to have a cochlear implant through NHS funding. Nevertheless, we would encourage all referrers to consider such referrals. For children the situation is even more clear-cut than for adults, as NICE guidelines permits potential implantation for any child with hearing thresholds worse than 90 in the high frequencies, irrespective of speech perception score. At AIS we are currently working to improve our pick-up of potential EAS cases, and a recent service evaluation has shown that we are getting better at preserving hearing post-operatively.

If you have any questions about hearing preservation or EAS, please feel free to contact C.A.Verschuur@soton.ac.uk.



Making a splash!



Katie Taylor

Before I had the Aqua+ I couldn't hear what my coach or the other swimmers were saying, like my coach telling us to do 200m front crawl to improve our technique so I can get faster each time. Once two of the swimmers told me I had to swim another 200m so I set off but they were being mean to me as it wasn't true.

The first time I tried my Aqua+ it was amazing and I loved it. I could hear my coach and my friends even when I dived, I don't normally hear the coach say 'on your marks, get set, go!' Normally someone has to tap me to go which makes me slower as they have to hear it first before they pass it to me. I don't like having to go when someone says. The Aqua+ is absolutely brilliant and I love it.

At the beginning of April I went to the GBDeaf Swim Champs and although I wasn't allowed to wear the Aqua+ (which I wanted to) I still swam well and I won two bronze medals, one silver medal and one gold medal - I was so pleased with my gold.

Katie Taylor



Katie in action

"Swimming has been so much better with the Aqua+ and I really love Katie being able to compete on a more equal footing."

Dawn Taylor

Aqua+ Feedback

Martha Womack, aged 9, from Wiltshire said: "When I first used it, I was going swimming with my friend. When I got to the swimming pool and went into the water it was amazing to be able to hear in the swimming pool and talk to my friend.

When I go to Pencelli with my class for a residential trip I think it's going to be really good when we go canoeing so I don't get my processor wet.

I would give it 9 out of 10. It would be 10 if it weren't rustle on the microphones in the car on the way there but it wasn't in the water."

Education and Training at USAIS

USAIS continues to run its well established and respected training programme for professionals with an interest in cochlear implants and other implantable devices. We run courses for professionals such as teaching staff to help them when supporting patients with cochlear implants. Some of these courses are now free to those supporting USAIS patients.

This year we have trialled holding our troubleshooting workshops in different locations closer to professionals, in order to reduce their travel time and costs.

The feedback has been excellent. 89% of attendees commented that the venues had reduced their travel time and costs. Some delegates

noted that they would not have been able to attend a course at all had it not been done locally.

We have managed to significantly increase (by 66%) the number of professionals who can now attend this course. We are therefore aiming to expand our courses locally in the future.

You can now view our courses for the next academic year on our website, to subscribe to our training E-newsletter for future dates please email ais@soton.ac.uk to keep yourself as up-to-date as possible on forthcoming events.

For any queries please feel free to contact our training programme coordinator Sue White AIS.Training@soton.ac.uk



Participating in the Telephone Training course

Teenagers, Telephones and Technology, Try IT and Test IT day

We held another of our popular 'Teenagers, Telephones and Technology day' at USAIS on 28th March.

The day started with a warm-up activity so that we could all get to know each other. Then the teens split into two groups, one group did some telephone use training first and the other explored technology.

The teens enjoyed experimenting with different phones using the tone and volume controls. They also got a 1:1 phone session going through some telephone training stages followed by a phone conversation with a staff member. Many of the teens felt more confident on the phone having tried the different settings. All of them had success with using the phone.

The technology session also went well. A room loop had been set up for them to try out – this was a new experience for many of the teens. They also tried out personal audio cables and Bluetooth. One of our adult cochlear implant users, Vanessa Scott, kindly agreed to take part in the day. It was fantastic that Vanessa agreed to take part as she is such an inspiration! Vanessa is very experienced in using different technologies to help her hear as well as possible in different situations despite only having had her



Teenagers Day, March 2015

implant for a few months. She went on to lead the group session where the teens tried out Skype and Facetime and talked about different apps that they use. Some of the apps that were suggested were new to the staff at USAIS so it was good for us to get some recommendations.

We all enjoyed eating and chatting together. The overwhelming feedback from the day

was how much the teens enjoyed meeting each other and trying things out. A comment from one of the teens expressed the feelings of so many: "It was nice to meet people who understand." All of the teens said that they had fun and would recommend the event to a friend with a cochlear implant.

Introducing the New Telephone Training Programme for Adult Cochlear Implant Users

This year we have introduced a comprehensive, in-house Telephone Training Programme for our Adult Cochlear Implant users. Prior to implantation, prospective CI users expressed a wish to be able to use the phone again but required specialist support to guide them towards relevant information. Gaining success on the telephone varies from user to user but by utilising a structured approach and providing a positive experience, the CI user has the opportunity learn new skills, build confidence and effectively manage telephone calls.

Aims

Our aims in developing this programme for adult CI users were to:

- Produce a user-friendly, flexible resource adaptive to changing needs, environments and technology which is cost-effective and designed to complement our existing, post-implant rehabilitation support
- Empower the CI user by encouraging assertiveness and teaching them how to take control of the conversation
- Build user skills and confidence by providing a positive experience using structured resources for delivery of training in a controlled environment in the clinic and at home

- Provide a vehicle for self-directed peer support
 - Engage friends and family in practice to achieve successful functional outcomes
- Using the telephone successfully is a combination of 4 T's
- The right **technology**
 - The right **techniques** (having a toolkit)
 - **Trial and error** (practise, practise, practise!)
 - **Time**

We run regular **Telephone Workshops**:- small groups are introduced to a range of specialist telephones, given practical tips to get started, information about useful features to look for in a landline or mobile and an opportunity to practise listening on a 'phone with a therapist and in the group. All participants are also given a **handbook** which contains all the information they will need plus a programme of **exercises**. Additionally, we can offer **1:1 training calls** or **home visits**.

The exercises were developed to teach strategies and techniques for managing telephone calls. There are fifteen exercises, starting at a very basic 'scripted' level and working towards more advanced skills. The exercises are designed to be self-directed and can be used with family and friends or with a Therapist here at the Centre. Each exercise serves as a template and the CI user can adapt

them to suit their practise requirements – it is great to see how working this programme can engage the wider communication circle. Several of the tasks can also be practised independently – they involve listening to recorded messages with a script. With no pressure to 'speak and respond', the CI user has the opportunity to practise positioning the telephone, using telecoil, or possibly Bluetooth and other wireless connections and improve speech discrimination.

We offer home visits to those patients who may not be able to attend a workshop or who require a little more support – for many living alone, the telephone is a lifeline but care must be taken to find solutions that match the CI users lifestyle, capability and motivation.

If you would like any further information on the best way to use a telephone with a cochlear implant or our Telephone Training Programme please email Anna Lyford at a.lyford@soton.ac.uk



Anna Lyford leads the course

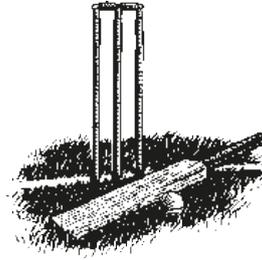
“It’s not just CrIcket”

A new workshop called ‘It’s not just CrIcket’ has been run twice this year for grandparents and others who support families in a similar role. The participants were invited to attend by the parents of our children with cochlear implants, not directly by us.

The workshops were run by a multi-disciplinary group of staff including an Audiologist, a Speech and Language Therapist and a Teacher of the Deaf. The morning focused on what it is like to be the grandparent of a child with a cochlear implant, and included speaking to a parent whose child has been implanted. The afternoon sessions were information based and led by USAIS staff with expertise in each area. These included looking at cochlear implants and how they work, the stages of listening, speech and language development, and basic troubleshooting in small groups with a focus on the specific device their relative was using.

The staff thoroughly enjoyed both workshops and feel privileged to have worked with such committed and caring groups of people.

The participants also enjoyed the day and feedback from both workshops was extremely positive.



“Very helpful, fantastic day, most enjoyable and informative for us grandparents”

“It was very helpful talking to other grandparents who are in the same position as myself”

“My understanding and confidence has improved thanks to this day”

Technology Update

Sonnet Launch

We are excited to announce the release of the new behind the ear speech processor from MED-EL, called the SONNET! The Sonnet has a new external design and includes some new features such as microphone directionality, wind noise reduction and improved water resistance.

Microphone directionality may provide benefit for some patients; this may be helpful in some noisy situations.

Wind noise reduction may make listening outdoors more comfortable by reducing continuous wind noise.

Improved water resistance makes the Sonnet processor splash proof.

We are currently running an ‘upgrade trial’ with the new Sonnet processors. In this trial some existing MED-EL patients who are due an upgrade to their processor have been given the opportunity to try the Sonnet.



Sonnet Processor

Patient News



Naughty Mabel!

Mabel, the Cocker Spaniel, confused this Comfort Audio receiver with her doggy chews. However, she does look suitably contrite. By the way – the receiver still works!

Staff News

We have had several staff changes this year. We welcome new members to our admin team Daniel Moss, Dan Carter and Coral Abraham. We also welcome our new Audiologists Barinder Samra, Zoe Bevis and Mark Chacksfield; our new Teacher of the Deaf Catherine Sammons and Educational Audiologist Stuart Whyte.

We have sadly said goodbye this year to Ewa Guscott, Teacher of the Deaf, and Srikanth Chundu, Audiologist who is now lecturing at Anglia Ruskin University.

We wish Nicola Timoney, Caroline Gamble and Louise Lee well on their maternity leave.

We would like to congratulate Sarah Paganga who celebrated her 20th year working at the USAIS on 1 April 2015. Well done Sarah!

Sad News

It is with great sadness we need to announce that Liz Wood lost her battle with cancer on 21 January 2015. Liz worked with us as a Teacher of the Deaf and Educational Audiologist for over 11 years until her retirement in 2009. She made a significant contribution to the department with her work on radio aids and with the FM working party. She is much missed as a colleague and as a friend.

Contact us

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Do you have good news stories or events for our next Newsletter?

Please contact Coral at:
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